

TRANSPARENT INTER-METAL DIELECTRIC STACK  
FOR CMOS IMAGE SENSORS

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**ABSTRACT**

A transparent inter-metal dielectric utilized in a CMOS image sensor includes a flowlayer sandwiched between a base SiO<sub>2</sub> layer and a cap SiO<sub>2</sub> layer. The flowlayer is formed by reacting SiH<sub>4</sub> and H<sub>2</sub>O<sub>2</sub> using a shortened H<sub>2</sub>O<sub>2</sub> stabilization time, using a reduced deposition pressure, and while maintaining the reaction chamber platen at a target value of approximately 1°C.